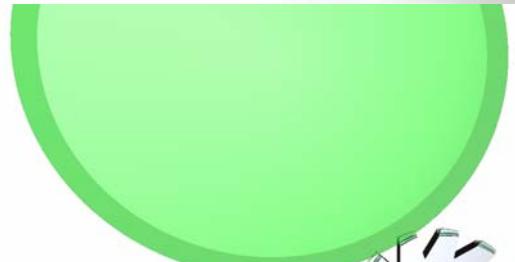


Profiled Milling Cutter Ø39 Z16 CAM

A02-001

The CAM-relief is ground through a continuous rotative process, where for each cutting edge the y-axis is incrementing radially. Per each complete rotation the grinding position is readjusted according to the wheelposition and the profile point. For filigrane profiles the profilepointresolution is set to 0.01 mm when using V-shaped wheels of torusradii of 0.06 mm. A universal V-shaped metalbonded wheel of type 14EE1 is used. The wheelorientation with respect to the profilepoint can be teached in dxQ. For the specific wheel-C-position and profilepoint, the wheel grinding point is recalculated in order to get zero side clearance for a perfect cam relief, where only radial clearance is required



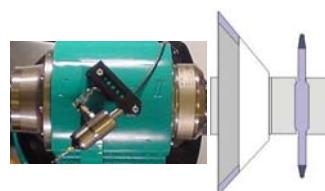
1. Cycletime for Resharpening

| | | | |
|--------------------|---|---------|---------|
| Workpiece: | Ø 39 mm, Z 16, Length 8 mm, Material CARBIDE | | |
| Operations | Probe | Flute 1 | Prf fin |
| Feed [mm/Min] | 2000 | 50 | 3500 |
| Power [kW] | | 3 | 1 |
| Cutting feed [m/s] | | 22 | 22 |
| Used wheels | | 1 | 2 |
| Grinding time [s] | 16 | 366 | 2236 |
| Total cycle time | 43 Min 38 | | |

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

2. Used Grinding Wheels

| | |
|---|-------------------|
| 1 | 12V9 Ø125 D64 |
| 2 | 14EE1 Ø60 D46V20° |



1 2

3. Machine and Software Requirements

Machines: 5 axes CNC grinders : GEM DMR

Coolant: Synthetic Oil, pressure 6 bar

Control: Fanuc 160i

Software: Quinto 4

Accessories:

Responsable engineer: OP. 29.7.09

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